

REMARKS

The Examiner has rejected Claim 6 under 35 U.S.C. 102(b) as anticipated or in the alternative under 35 U.S.C. 103(a) as obvious over Langley et al. These rejections are respectfully traversed.

With respect to the rejection under 35 U.S.C. 102(b), the Langley et al. reference fails to teach every element of applicant's claim 6 as required by law in order to support a rejection under 35 U.S.C. 102(b). There are five elements, none of which is taught by Langley et al. Where in Langley et al. is the <sup>microcontroller</sup> computer for calculating the maximum permitted quantity <sup>safety</sup> to be administered each time as a function of any <sup>col 3, 13-14</sup> previously delivered quantity and the expedited breaking down <sup>col 3, 7</sup> rate of the medicament? Langley et al. merely suggests the use of a "suitable controller such as a microprocessor-based controller coupled with a precision peristaltic pump." The anticoagulant infusion rate into the tubing is merely adjusted by this microprocessor.

Where in Langley et al. is the blocking device? <sup>flow controller col 4</sup>

Where in Langley et al. is a computer storing a <sup>micro processor</sup> quantitative amount of total delivered medicament less a quantity entered in the memory resulting from an expected breaking down of the medicament in the body?

Where in Langley et al. is there a suggestion that the

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computer has a comparator comparing the quantity entered in the memory with a predetermined, permitted maximum value?

The Examiner takes the position that applicant's elements are "inherent" in the teaching of Langley et al. Applicant emphatically disagrees. Langley et al. states in column 5, lines 66-68 and column 6, lines 1-2, that the "equations and the schematic diagram of FIG. 1 which corresponds to the equations do not necessarily portray any real procedure (emphasis added) but are only presented as a generalized hypothetical procedure." Applicant's elements are real and not hypothetical. Applicant's five infusion pump elements are contained in his claim. Langley et al. fails to disclose even one of them. Therefore, the rejection of claim 6 based on 35 U.S.C. 102(b) must be withdrawn.

With respect to the 35 U.S.C. 103(a) rejection based on Langley et al., applicant restates his five elements that are lacking in the Langley et al. description. Taking Langley et al. as a whole, it merely describes a system of controlling pumps 16, 28, 29 and 40. It does not suggest the elements of applicant's infusion pump as set forth above. For this reason, it does not make applicant's invention of claims 6 obvious within the meaning of 35 U.S.C. 103(a). Therefore, the rejection of claim 6 based on 35 U.S.C. 103(a) should be withdrawn.

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The Examiner further rejected claims 6-12 under 35 U.S.C. 103(a) as being unpatentable over Zacouto in view of Langley et al. This rejection is respectfully traversed.

Zacouto describes implanted sensors for detecting numerous biological conditions. Zacouto does not suggest the computer claimed by applicant which stores a quantitative figure resulting from a summation of a total delivered medicament amount and subtracting a quantity entered in the memory relating to the breakdown of the medicament in the body. In addition, Zacouto does not suggest that a computer in the infusion pump has a comparator comparing the quantity entered in the memory with a predetermined maximum value of medicament. Langley et al., discussed above, fails to suggest any of these same elements.

Taking Zacouto and Langley et al. together and considering them as a whole, they suggest implanted sensors controlling the amount of medicament flowing in various tubes. In contrast, applicant's infusion pump has a particular computer for calculating doses, a memory relating to the medicament in the patient's body and a comparator constantly comparing the quantity of medicament entered in the memory with a predetermined maximum amount of medicament suitable for the patient.

Note also that the combined references do not suggest a

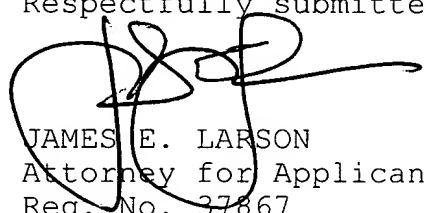
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device that can subtract a fixed percentage of the medicament quantity entered in the memory (claims 7-8). Nor do the combined references show a first computer which operates the infusion pump and a second computer operating the external control device. (Claims 10 and 12). Claims 9 and 11 are patentable over the combined references for the same reason that claim 6, from which they depend, is patentable. For these reasons, it is believed that claims 6-12 have not been made obvious within the meaning of 35 U.S.C. 103(a), based on Zacouto in view of Langley et al. Therefore, the rejection under 35 U.S.C. 103(a) should be withdrawn.

In view of all the above, it is believed that claims 6-12 are now in condition for allowance. Such action is earnestly solicited.

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